

Preparation of *cis*-pinane via α -pinene hydrogenation in water by using Ru nanoparticles immobilized in functionalized amphiphilic mesoporous sieves

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Supporting Information

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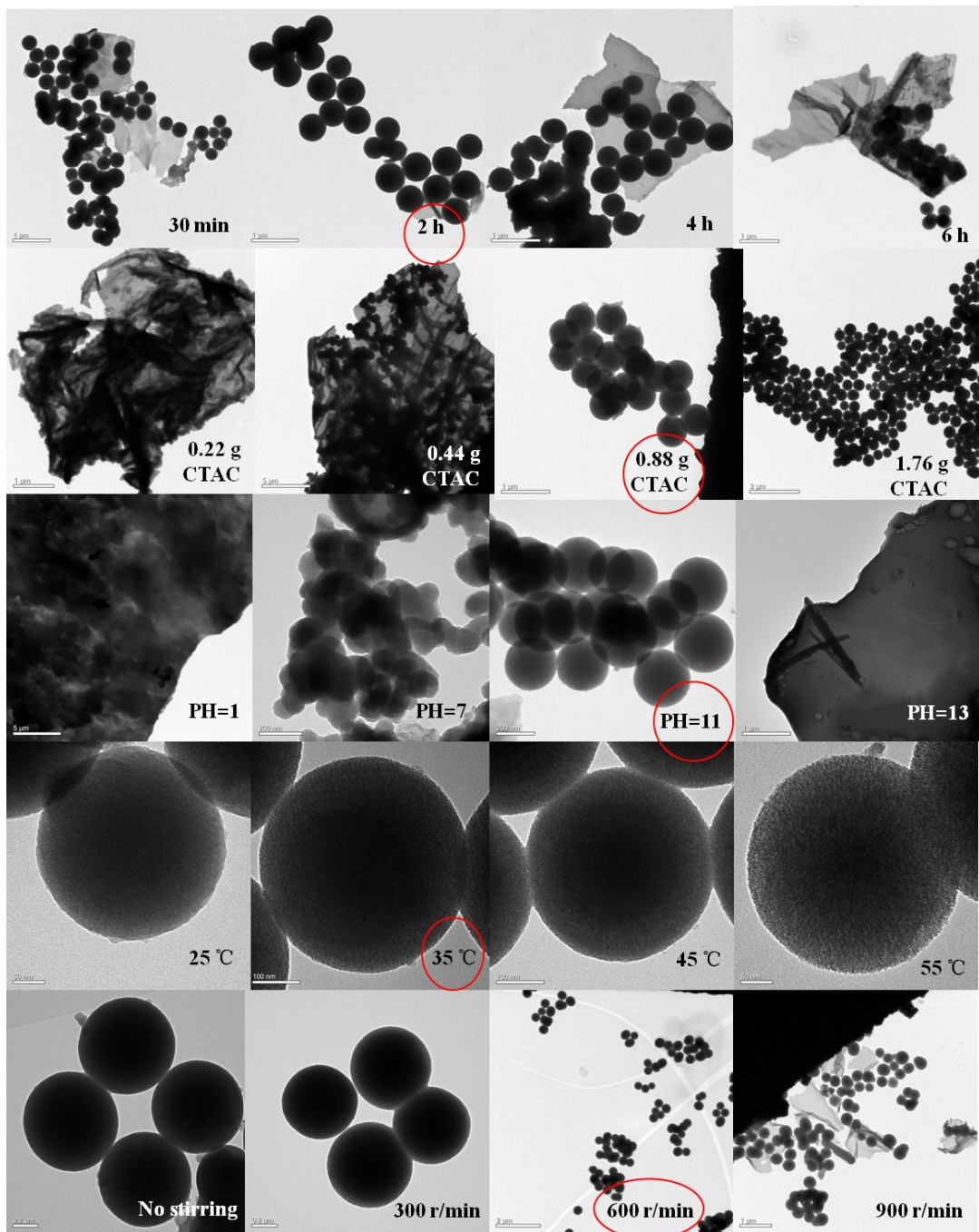


Fig. S1 The optimal synthetic conditions of amphilic molecular sieves.

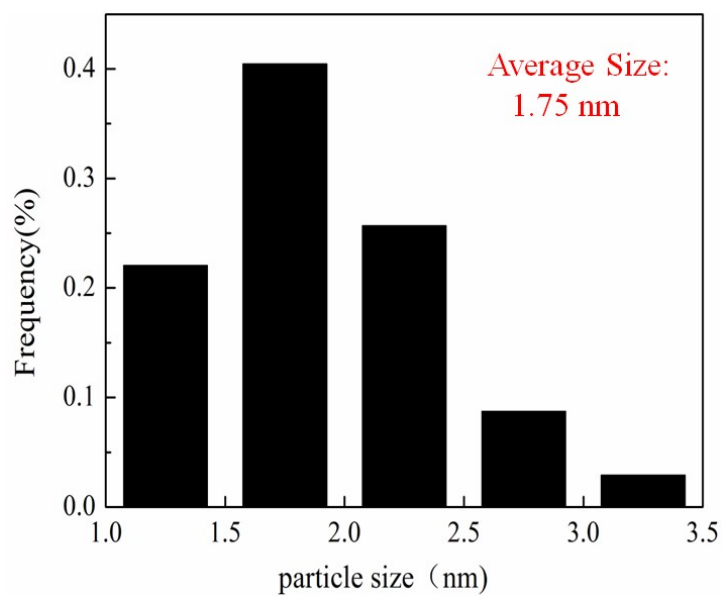


Fig. S2 The particle size distribution of Ru nanoparticles.

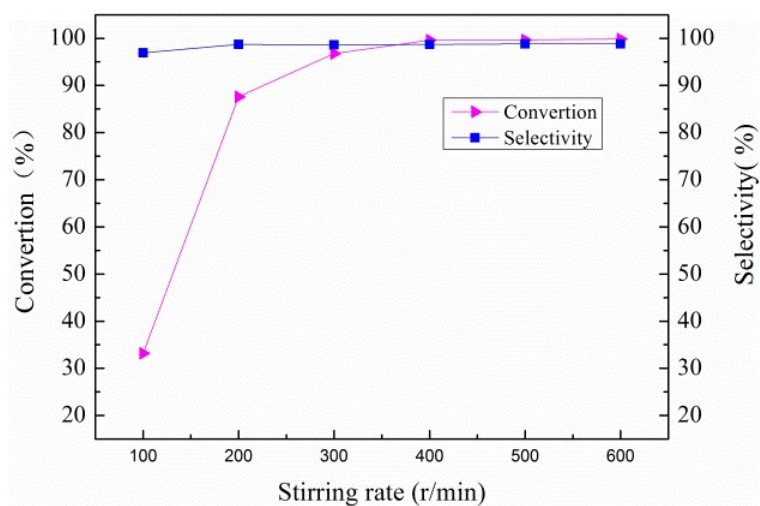


Fig. S3 The effect of stirring rate on the hydrogenation of α -pinene.

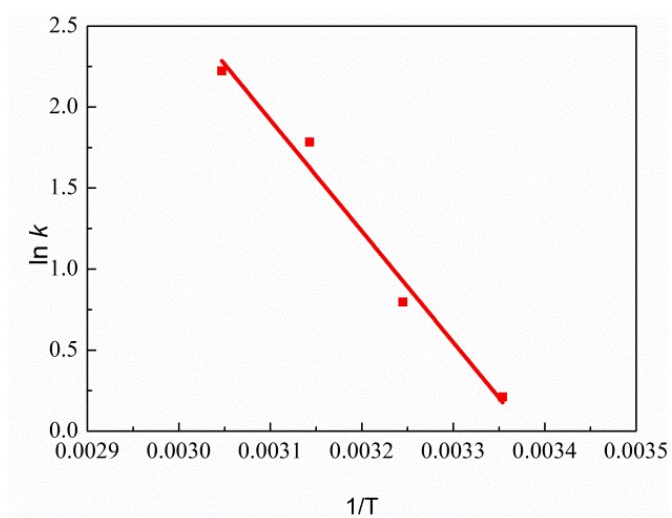


Fig. S4 The Arrhenius plot of α -pinene hydrogenation at different temperatures over Ru/MF@MN catalyst.

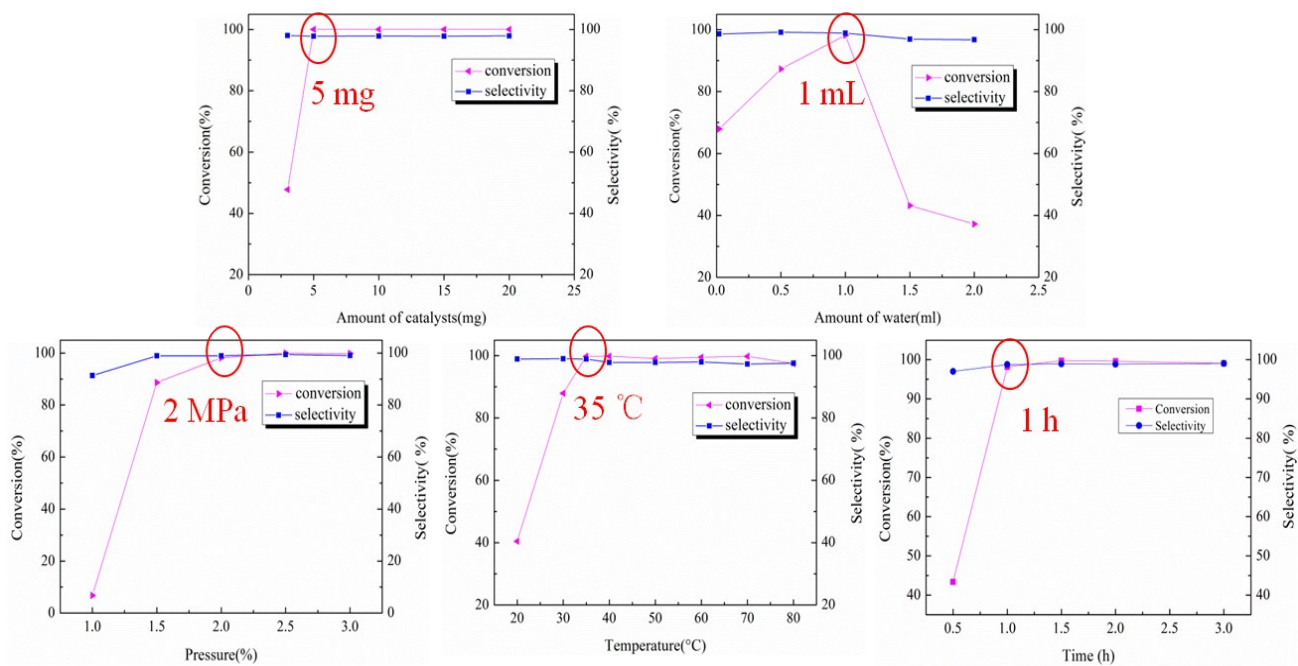


Fig. S5 The optimal reaction conditions of α -pinene hydrogenation.